

REMARKS

Claim Disposition

Claims 1-20 are pending in the application. Claims 1-20 stand rejected.

Claim Rejections - 35 USC § 112

Claim 5 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the explanation in the Office action states that:

“The drawing does not show any of the stator member being perpendicular to each other nor the specification support this structure ,therefore examiner assumes the stator members are perpendicular to the stator base (72)”

Applicants appreciate the Examiner’s concerns and have amended Claim 5 accordingly. Support for the claim and amendment may readily be found in Paragraph 13 of the Specification and in Figure 1.

Claim Rejections -35 USC § 102

Claims 1-5,9,10,13,17 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by Haydon U.S. Patent 3,495,111, herein after denoted as Haydon. The explanation in the Office Action suggests that:

“Haydon’111 discloses a four pole (see Fig.3) torque motor comprising; a rotor assembly (Fig.2,3) having a magnetic device (32), a motor core (32) and a motor shaft (34), a stator (Fig.2) having four stator members (14,15,54,55,Fig.3), wherein the stator is disposed so as to be surroundingly associated with the rotor assembly, a single motor coil (22) wherein the motor coil is disposed so as to be surroundingly associated

with the stator (see Fig.2), and a motor housing (12 cap member, see Fig.2) having a housing body (52b), wherein the housing body defines a housing cavity for containing the rotor assembly, the stator and the motor coil (see Fig.2)) the magnetic device is a permanent magnet and charged radially having four alternating poles (see Fig. 3), the stator members are perpendicular to the stator base (52), the stator includes a bobbin (24) for disposing the coil wire (Fig.2,3), the housing 52 includes a top plate 12b and a base plate 52b and they are associated with non-movably of the housing body, the top plate defines a tip plate shaft cavity (the left part of plate 12) and the base plate (the right part of 12,52b), both parts have a cavity to communicate with the motor shaft (34) see Fig. 2, a bearing is disposed within the base plate(36,38,Fig.2).”

Applicants respectfully contend that the explanation in the Office Action mischaracterizes the teachings of Haydon. To anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements “arranged as in the claim.” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

With regard to Claims 1-5,9,10,13,17 and 18:

Applicants respectfully contend that Haydon does not teach or disclose each element of the invention “arranged as in the claim”. Specifically, with regard to Claims 1 and 17, Haydon does not teach or disclose, “A four pole torque motor”. In fact, Haydon does not teach or disclose anything with respect to a torque motor. Haydon is drawn to a 4 pole shaded pole motor. It is well known in the art that the distinctions between torque motors and shaded pole motors are pronounced and serve differing technological needs. Specifically, torque motors are generally designed for a limited angular rotation while the motor of Haydon is not. Therefore, because Haydon does not disclose, teach, or disclose

one or more elements of the invention it cannot anticipate the Applicant's claims. Thus, Claims 1, 17, and 18 are allowable, the rejections are improper, and they should be withdrawn.

In view of the above discussion, Claims 2 – 16 and 18 – 20 depend from Claims 1 and 17 respectively, whether directly or indirectly, and include all of the corresponding limitations thereof. Claims 1 and 17 are not taught by Haydon, therefore, Claims 2 – 16 and 18 – 20 cannot be taught by Haydon. Thus, Claims 2 – 16 and 18 – 20 are allowable, the rejections are improper and they should be withdrawn.

Claim Rejections -35 USC § 103

Claims 6, 7, 8, 11, 12, 14-16, 19, and 20 stand rejected under 35 U.S.C. 103(a) as being anticipated by Haydon U.S. Patent 3,495,111, herein after denoted as Haydon in view of Binder U.S. Patent 4,286,187, hereinafter denoted as Binder. The explanation in the Office Action suggests that:

“Haydon'111 discloses a four pole (see Fig.3) torque motor comprising; a rotor assembly (Fig.2,3) having a magnetic device (32), a motor core (32) and a motor shaft (34), a stator (Fig.2) having four stator members (14,15,54,55,Fig.3), wherein the stator is disposed so as to be surroundingly associated with the rotor assembly, a single motor coil (22) wherein the motor coil is disposed so as to be surroundingly associated with the stator (see Fig.2), and a motor housing (12 cap member, see Fig.2) having a housing body (52b), wherein the housing body defines a housing cavity for containing the rotor assembly, the stator and the motor coil (see Fig.2),) the magnetic device is a permanent magnet and charged radially having four alternating poles (see Fig.3), the stator members are perpendicular to the stator base (52), the stator includes a bobbin (24) for disposing the coil wire (Fig.2,3),the housing 52 includes a top plate (12b) and a base plate (52b) and they are associated with non-movably of the housing body, the top plate defines a top plate shaft cavity (the left part of plate 12) and the base plate (the right part of 12,52b), both parts have cavity to communicate with motor shaft (34) see Fig. 2. a bearing is disposed within the base plate (36,38,Fig.2).”

“However Haydon’111 teaches all limitation of claimed invention except the stator cross-sectional area at the is larger than at the base and both plate top and base plate have receiving notches and protruding edges.”

“Binder’187 discloses a rotary machine having claw shape stator with a stator cross-sectional area at the is larger than at the base (the rotor 8, see Fig.2) and both plate top and base plate have receiving notches (13.2,3 see Fig.1 ,2) and protruding edges (see two protruding parts on the top plate 12 which extended inwardly for receiving the screw attachment and the two protruding parts on base plate where the arrow 5,6 pointing see Fig.1 ,2).”

“Therefore it would have been obvious to one having ordinary skill in art at the time the invention was made to combine Haydon’111 motor with the stator cross-sectional area at the is larger than at the base and both plate top and base plate and having receiving notches and protruding edges as taught by Binder’187 for the purpose of increasing the magnet surface to increase the magnetic flux and for the purpose of securing two plates together and having protruding part to attach the internal part together via screws.”

Applicant respectfully disagrees. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness. *In re Fine*, U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

With regard to Claims 6, 7, 8, 11, 12, 14-16, 19, and 20:

Applicants respectfully contend that neither Haydon nor Binder, whether alone or in combination do not teach or disclose each element of the invention. Specifically, with

regard to independent Claims 1, 17, and 18, as presented above, Haydon does not teach or disclose, “A four pole torque motor”. In fact, Haydon does not teach or disclose anything with respect to a torque motor, Haydon is a shaded pole motor.

With regard to Claims 6 and 19, Binder does not teach or disclose, “wherein said stator members are **shaped such that said stator cross-sectional area is larger at said stator base than said stator top**”. In fact, Binder does not teach or disclose anything with respect to the cross section of the stator therein. Applicants respectfully contend that the Examiner has mischaracterized the teachings of Binder. To support the rejection, the Examiner has mischaracterized the claw shaped *rotor* 8 (see Fig 2) of Binder as a *stator*. Binder specifically teaches a claw shaped *rotor*. There is no teaching with respect to the shape of the *stator*. Therefore, because Binder does not teach or disclose an element of the claimed invention, the Examiner has not made a *prima facie* case for obviousness and Binder may be employed to render Applicants’ claims unpatentable. Thus, Claims 6 and 19 are allowable, the rejections are improper, and they should be withdrawn.

In view of the above discussion, Claims 7-8 and 19 – 20 depend from Claims 6 and 19 respectively, whether directly or indirectly, and include all of the corresponding limitations thereof. Claims 6 and 19 are not taught by Haydon nor Binder, therefore, Claims 7 – 8 and 19 – 20 cannot be taught by Haydon or Binder either. Thus, Claims 7 – 8, and 19 – 20 are allowable, the rejections are improper, and they should be withdrawn.

In addition, the Examiner has provided no explanation or suggestion for the motivation to make the suggested combination, nor has the Examiner identified where in the cited references or the art teaching of such motivation may be found. *In re Fine* specifically requires that the Examiner must meet the burden of establishing that the suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. There is no such motivation. In fact, Binder specifically teaches that the specific shape of the rotor (that the Examiner relies on) therein is not important. See Col. 3, lines 25-29. “The particular construction of the rotor as well as of the field 18 is not material to the present invention, and any suitable well known construction may be used. Therefore, because Binder specifically teaches away

from the suggested modification and combination with Haydon is in contravention of §103. Therefore, because suggested combination of references is improper, the Examiner has not made a *prima facie* case for obviousness and Haydon combined with Binder may be employed to render Applicants' claims unpatentable. Thus, Claims 6, 7, 8, 11, 12, 14-16, 19, and 20 are allowable, the rejections are improper, and they should be withdrawn.

Alternatively, considering hypothetically that the suggested combination is made, the proposed combination would still not be sufficient to render Applicants' claims unpatentable. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing ... that the proposed modification of the prior art must have had a reasonable expectation of success. MPEP 2143.02. Moreover, the suggested modification cannot change the principle of operation of a reference. MPEP 2143.01. The combination of references as suggested in the Office Action cannot satisfy either of these requirements. The explanation in the Office Action provides no such support or the suggestion of combining the cited references. In addition, the suggested combination would require a significant change in the principle of operation of one or both of the references. For example, the suggested combination and modification would result in a claw shaped stator being employed with the motor taught in Haydon. Clearly, such a modification would result in a change in the principle of operation for the shaded pole motor or Haydon and the generator with a claw shaped *rotor* of Binder. Therefore, because suggested combination of references is improper, the Examiner has not made a *prima facie* case for obviousness and Haydon combined with Binder may be employed to render Applicants' claims unpatentable. Thus, Claims 6, 7, 8, 11, 12, 14-16, 19, and 20 are allowable, the rejections are improper, and they should be withdrawn.

The amendments and arguments presented herein are made for the purposes of better defining the invention, rather than to overcome rejections for patentability. The claims were not amended to overcome the prior art and therefore, no presumption should attach that either the claims have been narrowed over those earlier presented, or that subject matter or equivalents thereof to which the Applicants are entitled has been surrendered. It is believed that the foregoing remarks are fully responsive to the Office Action. Allowance of the claims is respectfully requested in view of the preceding remarks.

If there are any additional charges with respect to this Response or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully Submitted,

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